

REMARKS/ARGUMENTS

Reconsideration of this application and entry of this Amendment are solicited. Claims 1, 4-11 and 14 will be active in the application subsequent to entry of this Amendment.

It is proposed to amend claim 1 in order to more particularly point out and distinctly claim that which applicants regard as their invention and direct the claims to preferred aspects of the disclosure. In addition, applicants wish to follow the kind suggestion made by the examiner on page 5, item 8, third paragraph, that a turbidity value be recited in the claims. Applicants appreciate the examiner's suggestion and have adopted it in amending claim 1. Specifically, claim 1 is amended to recite a turbidity value above 2000 TU. This value may be found in the description of the invention in various passages, in particular the "target turbidity" value given on page 8, lines 36-37 which is also discussed in the paragraph on page 10, lines 4-15. The object here is to maintain a significant degree of turbidity by maintaining the presence of significant quantity of suspended solids where the desirable favorable components reside.

In addition, it is proposed to amend claim 1 to recite that the processed mango juice has not been subjected to ultrafiltration. Ultrafiltration is a technique successfully used by Chen et al to prepare clarified fruit juice, a process which removes almost all of the suspended solids by ultrafiltration or microfiltration and with it also the insoluble flavor components derived from the fruit. Basis for the amendment to claim 1 will be found in the description of the invention at page 6, lines 15-20 where applicants explain the relationship with ultrafiltration and the undesirable affect of weakening the unique mango flavor.

In addition to these important advantages achieved by the present invention, the amendments made to claim 1 in that applicants are defining their process not only by the conditions used to prepare the product but also the properties of the resulting product itself. These properties, while consequences of centrifugal separation and avoidance of ultrafiltration result in a more favorable product and can be quantified in terms of a minimum turbidity value as now recited in amended claim 1.

As applicants earlier explained, depulping of fruit juice eliminates almost all insoluble components, which are responsible for the fruit juice flavor, from the processed fluid.

However, the present inventors found, surprisingly, that when mango juice is used as the fruit juice, the processed juice obtained after depulping (used to prevent sedimentation) contains

a large quantity of insoluble components (page 3, lines 21-24). To explain, after depulping fruit juices by centrifugal separation, the turbidity, which is usually considered an indicator of the fruit-derived flavor, of the tested fruit juices – except for mango – was low, but turbidity of the mango juice was very high (page 8, line 5-page 9, line 10; Figure 1). Now, turbidity is a specifically claimed property.

On the other hand, Chen et al disclose clarified juice produced by a process comprising the step of subjecting pulpy fruit puree etc. to ultrafiltration (UF) or micro filtration (which applicants avoid) to form a fraction comprising substantially all of the suspended solids and a fraction of clarified juice. They describe only one method for depulping – ultrafiltration. However, they neither describe nor suggest the above-stated characteristics which are unique to mango juice after depulping by centrifugal separation. Furthermore, Chen et al mention that one advantage of their process is to eliminate centrifuging steps (column 7, lines 9-13 and lines 28-31), hence Chen would not have appreciated the desirable, flavor-enhancing turbidity characteristics associated with mango juice to be high.

Chen et al disclose clarified fruit juice, which is obtained by a process which removes almost all of suspended solids by ultra or micro filtration, and thus hardly contains insoluble flavor components derived from the fruit.

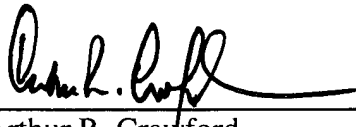
A person having ordinary skill in the art can easily recognize that the particle size distribution and the turbidity of their clarified juice obtained by the filtration process is different from those of the processed mango juice of the present invention, which are typically shown in Figures 2 and 3 of the present application.

For the above reasons it is respectfully submitted that claims 1, 4-11 and 14 are directed to allowable subject matter. Reconsideration, entry of this Amendment and allowance are solicited. Should the examiner require further information, please contact the undersigned by telephone.

YOKOO et al
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Respectfully submitted,

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